

CLAIMS

1. Alkaline glasses with a modified glass surface characterized in that the chemism thereof within the surface has an aluminum concentration which is markedly increased in relation to the volume.
2. A process for the production of alkaline glasses with a modified glass surface characterized in that the surface of said glasses is brought into contact with elevated levels of aluminum concentration and subjected to a heat treatment.
3. A process as set forth in claim 2 characterized in that the surface of said glasses is brought into contact with alum ($K Al (SO_4)_2 \times 12 H_2O$) and/or $AlCl_3$ with and without water of crystallization and subjected to heat treatment.
4. A process as set forth in claim 2 and claim 3 characterized in that aluminum compounds in soluble form are applied to the surface of said glasses by dipping or spraying and then subjected to heat treatment.
5. A process as set forth in claims 2 through 4 characterized in that the aluminum compounds used correspond to an amount of at least 0.1 g/m^2 of glass surface area and the glass surface is then heated into the region of the transformation temperature $\pm 150 \text{ K}$.
6. A process as set forth in claim 2 characterized in that the surface of said glasses is brought into contact with aluminum chloride compounds from the vapor phase for between 0.1 second and an hour.
7. A process as set forth in claim 2 and claim 6 characterized in that the aluminum chloride compounds used correspond to an amount of at least 0.1 g/m^3 of contacting volume and the lower sample temperature of the glass surface is limited by the temperature change resistance of the glass and the upper sample temperature of the glass surface is up to 600 K above the transformation temperature of the glass.

8. A process as set forth in claim 2 and claim 6 characterized in that the temperature of the aluminum chloride compounds is between the sublimation temperature of 170°C and up to 600 K above the transformation temperature of the glass.

9. A process as set forth in claim 2 and claim 6 characterized in that in tube glass production the inner blowing pressure is implemented by means of a gaseous phase inclusive of the aluminum chloride compounds and said gaseous phase is urged through the tube similarly to the air in the Vello or Danner process.